

**Interflow**<sup>®</sup>

**CUSTOMER**

VIC Roads - Western Region

**PROJECT NAME**

Culvert Relining - Western Freeway

**LOCATION**

Bungaree, Victoria

**DELIVERED**

March 2007

**REFERENCE NO.**

01-ROA-VIC01

**RENEWING CULVERTS WITH  
SPR<sup>™</sup> PE - RIBLINE**

Corrugated metal culverts are susceptible to corrosion, particularly when the galvanised coating has worn away. Steel reinforced polyethylene SPR<sup>™</sup> PE - Ribline provides a smooth abrasion resistant, inert liner.

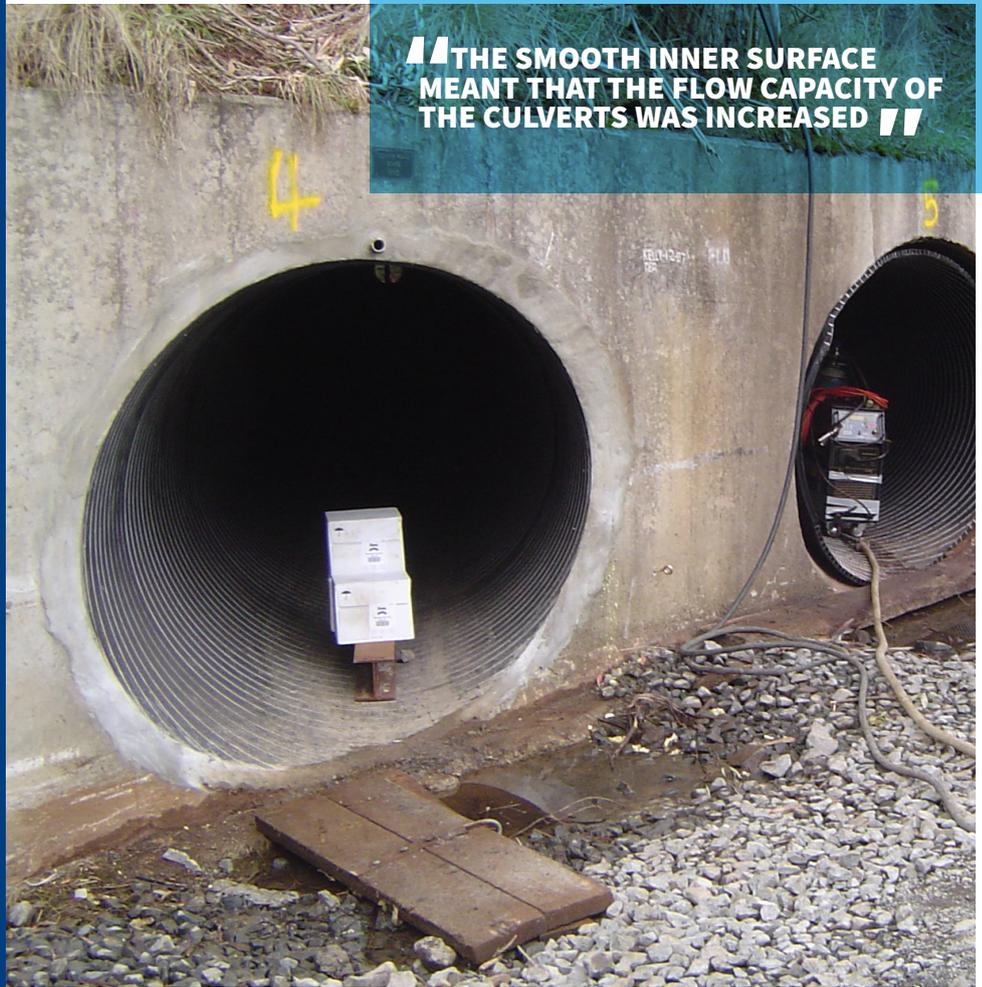
## THE CHALLENGE:

The Western Freeway at Bungaree, near Ballarat, passes over a bank of seven DN1800 corrugated metal culverts approximately 113 metres in length.

Despite being less than 30 years old, the inverts (bases) of the culverts were showing deterioration due to corrosion and abrasion.

## THE SOLUTION:

SPR™ PE - Ribline, with its steel reinforced polyethylene composition, can be designed as a structural liner for large diameter culverts and was capable of meeting the onerous structural design and installation requirements. Being installed by a winding machine, it can be installed from work sites with limited area.



▲ THE SMOOTH INNER SURFACE MEANT THAT THE FLOW CAPACITY OF THE CULVERTS WAS INCREASED ▲

## THE PROJECT:

Before installation of the liner could commence, considerable site preparation work was needed. An existing overgrown access track to the face of the culverts was cleared and a narrow hard standing area constructed.

The winding machine was placed adjacent to each culvert's opening at the headwall and set to wind the largest diameter liner that could fit into the culvert. Barrels of liner about 50 metres long were wound and then winched along steel rails in the base of the culvert, with successive barrels of the liner being joined by welding.

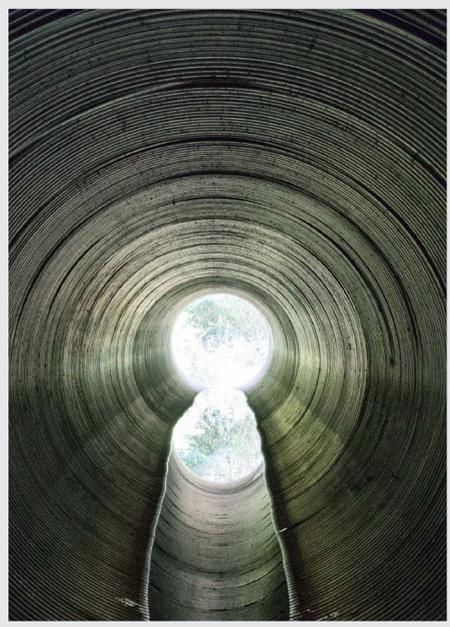
After installation the liner was fixed in position with cementitious grout filling the annulus between the outside of the liner and the inside of the culvert.

## CONCLUSION:

The project was completed without excavation and with minimal disturbance to highway traffic and the surrounding community.

Interflow is committed to offering its customers optimum solutions of the highest value for pipeline rehabilitation.

For more information about Interflow's integrated renewal services, and to find out about the full range of innovative products Interflow can provide, visit [www.interflow.com.au](http://www.interflow.com.au)



*Inside the SPR™ PE - Ribline installed liner*